

Conference Abstract

# Towards a New Legume Systematics Portal

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## Abstract

The need for scientists to exchange, share, and organise data has resulted in a proliferation of research data portals in the past decades. These cyberinfrastructures have had a major impact on taxonomy and helped to revitalise the discipline, by allowing quick access to bibliographic information, biological and nomenclatural data, and specimen information. In addition, several specialised portals aggregate particular data types for a large number of species and can be queried to extract information for a particular taxonomic group. Because of their ecological and economic importance, several early initiatives to develop and deploy information technologies for capturing, sharing, and disseminating information focused specifically on the plant family Leguminosae (Fabaceae). Initiatives such as ILDIS (International Legume Database and Information Service), which was created in 1985, led the way in developing methods and thinking with regard to taxonomic data management more generally. More recently, the Legume Phylogeny Working Group (LPWG) was founded in 2010 with the objective of facilitating

collaboration amongst systematists working on the plant family Leguminosae (Fabaceae). As part of this endeavour, the LPWG has explored whether it would be desirable and pertinent to develop a new portal focused on the legume family. We argue that, despite access to numerous data aggregation portals, a taxon-focussed portal curated by a community of researchers specialised on a particular taxonomic group, such as the LPWG, have the interest, commitment, existing collaborative links, and knowledge necessary to verify data quality, thereby providing a valuable resource and actively contributing to other more general data providers. We consider that a new portal focused on Leguminosae would thus serve a useful function in parallel to and different from large international data-aggregation portals. We explored best practices for developing a legume-focused portal that will enable long-term sustainability, data sharing, a better understanding of what data are available, missing, or erroneous, and ultimately facilitate cross analyses and development of novel research. We surveyed existing data portals to see what features are of interest to our goal and we present a general way forward for developing a legume-focused portal that would respond to the needs of the legume systematics research community as well as to the broader user community. We propose to take full advantage of existing data sources, informatics tools, and protocols to develop an easily manageable, scalable, and interactive portal that will be used, contributed to, and fully endorsed and supported by the legume systematics community.

## **Keywords**

Leguminosae, Fabaceae, taxonomy, portal, systematics, LPWG

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